

North Dakota Public Employees Retirement System NDPERS Board Presentation

Legacy Application System Review (LASR) Project Feasibility Study

June 29, 2006



Agenda

- ◆ Objective / Background
- ◆ Historical Growth
- ◆ Business Issues and Challenges
- ◆ Required Operating Environment
- ◆ Possible Approaches, Options, and Solutions
- ◆ Cost Drivers and Costs
- ◆ Risk Management
- ◆ Benefits Summary
- ◆ Recommendation
- ◆ Anticipated Timeline
- ◆ Questions and Answers



Objective / Background

- ◆ L. R. Wechsler. Ltd. (LRWL) was contracted to
 - Examine the current strengths and weaknesses of the legacy system
 - Determine whether
 - » Current system will sustain NDPERS into the future
or
 - » An alternative solution should be pursued
 - Provide estimated costs for each alternative solution
 - Recommend a go forward approach
- ◆ LRWL has provided similar analysis for over two dozen other public employee retirement systems

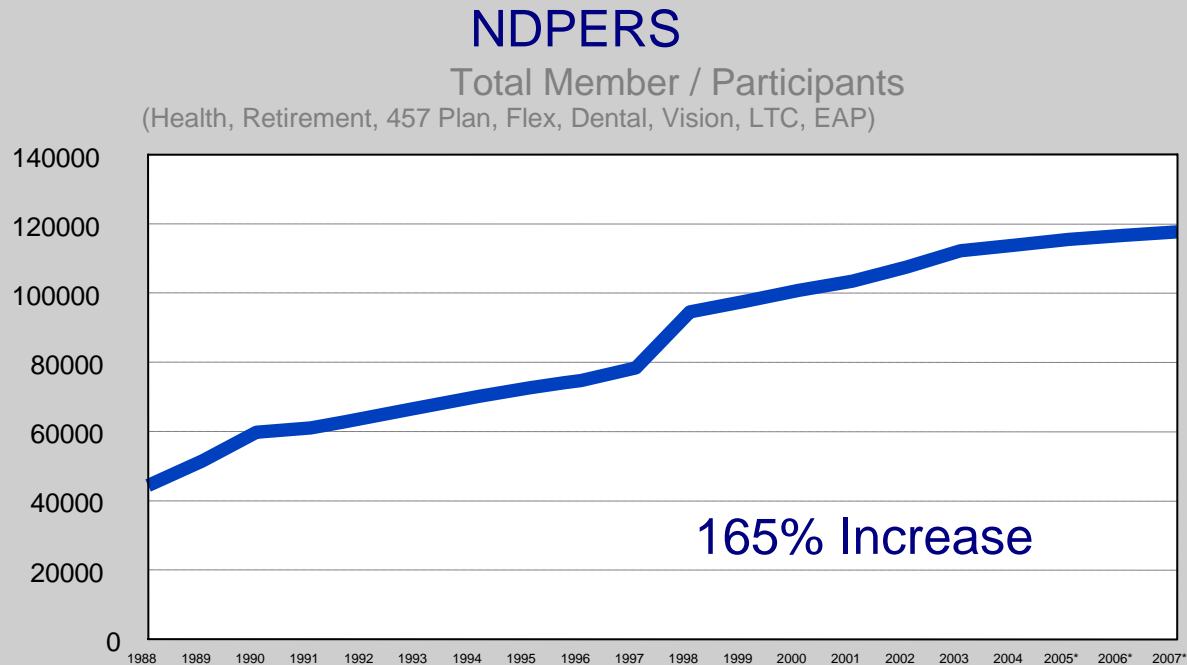


Historical Growth

- ◆ Since its inception in 1966, NDPERS employee benefit plans administered has grown to include:
 - 6 defined benefit programs
 - 2 defined contribution programs
 - 1 retiree health credit program
 - 5 group insurance programs
 - 1 employee assistance program
 - 1 flexible compensation program



Historical Growth (cont.)



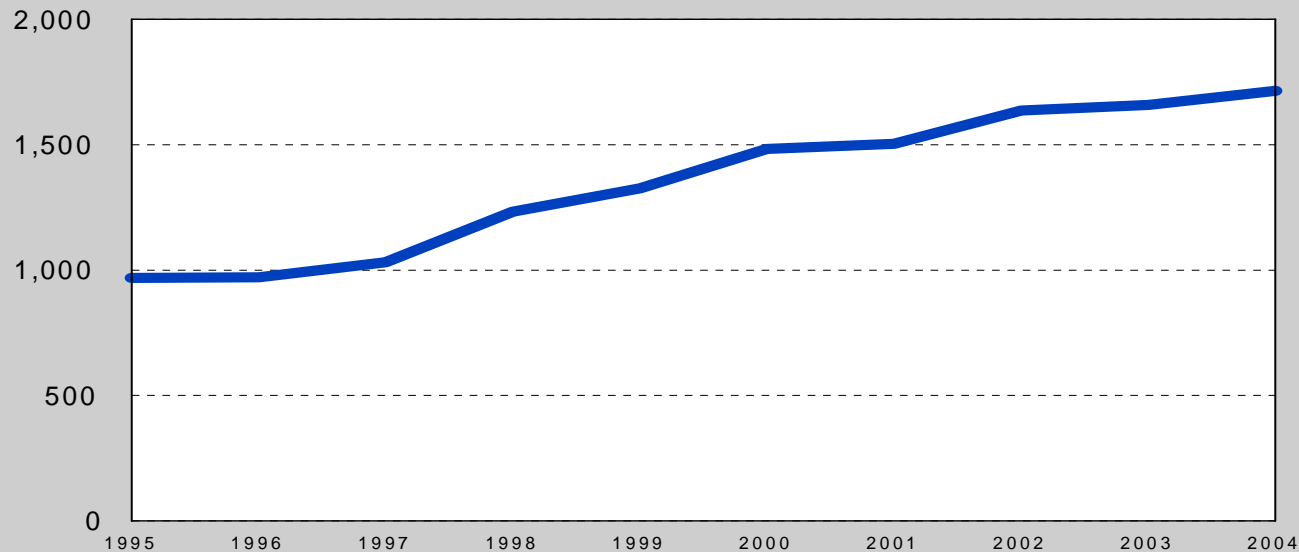
- ◆ Program growth has resulted in member / participant growth of 165% since 1988



Historical Growth (cont.)

NDPERS

Participating Employers (All Programs)



- ◆ Program growth has resulted in employer growth of 70% since 1995



Business Issues and Challenges

- ◆ Among the many challenges NDPERS faces, the following stand out:
 - How will NDPERS handle growth in services and retirements (estimated 60% growth within 5 years)?
 - » Expected to require minimum of 7 additional FTE's at \$600,000 per biennium
 - How long does NDPERS invest in a system that
 - » ITD suggests be retired?
 - » Believe limits its operating flexibility?
 - » Is fragmented and not integrated? How does NDPERS implement state of the art employer reporting?



Business Issues and Challenges (cont.)

- ◆ NDPERS staff retirement means lost knowledge unless knowledge is institutionalized
 - Potential 50% NDPERS staff loss in 9 years
 - Potential 72% NDPERS staff loss in 15 years
 - Lack of fully documented processes and procedures
- ◆ Potential for misapplied business rules and incorrect data entry/update
 - “Work-around” solutions
 - Non-integrated systems are used extensively
- ◆ Modifications over time have complicated the system and made it more difficult to maintain, modify, update, test – a problem that grows exponentially
- ◆ Functionality is missing



Business Issues and Challenges (cont.)

- ◆ Technologies are at the end of their lives (30+ years old)
 - Adabas, Natural, Cobol and dBase
 - Programmers for these languages are becoming scarce
- ◆ Technologies are not oriented towards
 - Web enablement
 - Workflow and imaging integration
- ◆ Fragmented, isolated systems
 - Add to workload
 - Provide opportunity to introduce errors



Business Issues and Challenges (cont.)

- ◆ Non-integrated database and systems
 - Cause maintenance challenges
 - Add un-necessary complexity
 - Cause extra work – redundant data entry
 - 74% of the program processes are not integrated
 - 83% of the administration processes are not integrated



Business Issues and Challenges (cont.)

Program Processes: Fully integrated or not fully integrated

| Function Performed | Fully Integrated | Not Integrated |
|---|------------------|----------------|
| Defined Benefit Plans (Main, Judges, National Guard, Law Enforcement, Highway Patrol & Job Service) - 6 | 79 | 168 |
| Defined Contribution Plans (Optional Defined Contribution and 457 Deferred Comp) - 2 | 9 | 35 |
| Group Insurance (Health, life, dental, vision, LTC) - 5 | 14 | 76 |
| Retiree Health Insurance Credit – 1 | 1 | 8 |
| Employee Assistance Program - 1 | 4 | 5 |
| FlexComp - 1 | 1 | 9 |
| Totals | 108 | 301 |
| Percentage of Total Work | 26% | 74% |



Business Issues and Challenges (cont.)

Administration Processes: Fully integrated or not fully integrated

| Function Performed | Fully Integrated | Not Integrated |
|---------------------------|------------------|----------------|
| Accounting | 0 | 2 |
| Administrative Services | 0 | 3 |
| Development and Research | 0 | 3 |
| Information Technology | 6 | 13 |
| Internal Audit | 0 | 6 |
| Totals | 6 | 27 |
| Percentages of Total Work | 17% | 83% |



Required Operating Environment

- ◆ NDPERS management identified their high level business needs in the following areas:
 - Account maintenance including
 - » Single points of entry across all plans and programs administered
 - » Automatic notification of changes to members
 - Account processing including
 - » On line enrollment and maintenance
 - » Expanded services
 - » New statement design



Required Operating Environment (cont.)

- Group insurance including
 - » Administer all insurance benefits within an integrated environment
 - » Meet federal compliance requirements (COBRA, HIPAA, etc.)
 - » On-line access
- Retiree payroll including
 - » First check set up
 - » All deductions handled
 - » Automatic tax calculations
- Accounting including
 - » Integrate with external systems
 - » Automated employer reporting for all plans
 - » Maintain detailed histories



Required Operating Environment (cont.)

- Auditing including
 - » Controlled access
 - » Automatic user testing of plans
- Program support including
 - » Ad hoc reporting
- Administrative including
 - » Integration of workflow and imaging with line-of-business
 - » Metrics collected and reported automatically
- System based on date-effective, user-maintained
 - » Rules
 - » Calculations



Possible Approaches, Options and Solutions

- ◆ Continued enhancement is not a financially prudent option:
 - Continued use of system will result in more work-around solutions and non-integration, each adding more risk and less internal control
 - ITD and LRWL have indicated system will need to be replaced anyway in 3-7 years
 - Delayed replacement jeopardizes losing staff experience
 - Lack of experienced COBOL, Natural, Adabas, dBase programmers to support the system
 - Continued growth in the backlog of system enhancement requests



Possible Approaches, Options and Solutions (cont.)

- ◆ NDPERS could “build” a system:
 - Implementation only costs are estimated by ITD to be \$7.6 million
 - Implementation cost only by an independent contractor is estimated at \$15 million by LRWL
 - 10-year cost for a replacement system developed by ITD is estimated to be \$10.8 million and includes:
 - » System replacement within 40 month timeframe
 - » Oversight Project Management, Independent Validation and Verification and/or Quality Assurance
 - » Back-file conversion
 - » Contingency fund (25%)
 - » Supplemental Staffing
 - » ITD Hosting and ITD support



Possible Approaches, Options and Solutions (cont.)

◆ NDPERS could “buy” a system:

- Implementation costs only are estimated to fall in the range of \$8.0 to \$9.0 million
- Estimate is based on comparables drawn from the LRWL database of current and past projects
- 10-year cost for a comprehensive, all-inclusive system is estimated at \$11.4 million and includes
 - » Development of Request for Proposal
 - » System Replacement with 30-36 month duration
 - » Oversight Project Management, Independent Validation and Verification and/or Quality Assurance
 - » Back-file conversion
 - » Contingency fund (10%)
 - » Supplemental Staffing
 - » ITD Hosting
 - » Post-implementation support by software vendor



Cost Drivers

- ◆ Complexity of requirements to be supported
- ◆ Scope – what is included and what is not
- ◆ Degree of precision of specification (RFP detail)
- ◆ Competitive pressures of marketplace
 - Vendor backlogs
 - Vendor desires
 - Plain old competition
- ◆ Quality of data
- ◆ Backfilling staff



Cost Comparisons

Cost Comparison of Replacement Approach for NDPERS Legacy Application System

| | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
|---|---|--------------------------|-----------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|--------------|
| 1 | Develop Benefit System through ITD | Estimated Cost ** | | | | | | | | | | |
| | a System Replacement (40 months) | \$6,100,000 | \$0 | \$2,523,833 | \$2,323,833 | \$3,073,833 | \$1,846,951 | \$215,340 | \$215,340 | \$215,340 | \$215,340 | \$10,845,151 |
| | b IV&V/QA/OPM services | \$1,111,111 | \$0 | \$333,333 | \$333,333 | \$333,333 | \$111,111 | | | | | \$6,100,000 |
| | c Backfile Conversion | \$200,000 | \$0 | \$200,000 | \$0 | \$0 | | | | | | \$1,111,111 |
| | d Contingency Fund (25%) | \$1,500,000 | \$0 | \$0 | \$0 | \$750,000 | \$750,000 | | | | | \$200,000 |
| | e Additional Staffing (4 FTE) | \$160,500 | \$0 | \$160,500 | \$160,500 | \$160,500 | \$160,500 | | | | | \$1,500,000 |
| | f ITD Hosting | \$64,140 | \$0 | \$0 | \$0 | \$64,140 | \$64,140 | \$64,140 | \$64,140 | \$64,140 | \$64,140 | \$642,000 |
| | g ITD Out-year Support | \$151,200 | \$0 | \$0 | \$0 | \$151,200 | \$151,200 | \$151,200 | \$151,200 | \$151,200 | \$151,200 | \$384,840 |
| | | | | | | | | | | | | \$907,200 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 2 | Procure Benefit System from Vendor | Estimated Cost ** | | | | | | | | | | |
| | a RFP development | \$316,720 | \$316,720 | \$0 | | | | | | | | \$316,720 |
| | b System Replacement | \$7,000,000 | \$0 | \$2,333,333 | \$2,333,333 | \$2,333,333 | | | | | | \$7,000,000 |
| | c IV&V/QA/OPM services | \$1,000,000 | \$0 | \$333,333 | \$333,333 | \$333,333 | | | | | | \$1,000,000 |
| | d Backfile Conversion | \$200,000 | \$0 | \$200,000 | \$0 | \$0 | | | | | | \$200,000 |
| | e Contingency Fund (10%) | \$700,000 | \$0 | \$0 | \$350,000 | \$350,000 | | | | | | \$700,000 |
| | f Additional Staffing (4 FTE) | \$160,500 | \$0 | \$160,500 | \$160,500 | \$160,500 | \$160,500 | | | | | \$642,000 |
| | g ITD Hosting | \$64,140 | \$0 | \$0 | \$0 | \$64,140 | \$64,140 | \$64,140 | \$64,140 | \$64,140 | \$64,140 | \$384,840 |
| | h Vendor Out-year Support | | \$0 | \$0 | \$0 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$1,200,000 |
| | | | | | | | | | | | | |
| | ** Unit or annual cost | | | | | | | | | | | |



Comparable Recent Projects

| Retirement System | Portfolio Value (\$Billion) | Active Members (000's) | Retirees (000's) | Total (000's) | # Employers | Multiple Plans | Multiple Locations | Number of Agency Employees | Year of Contract | Solution Implementation (\$M) | H/W (\$M) | Total LOB Implementation (\$M) | Post Warranty Support \$ | Length of PWS | Total - Excluding Post Warranty Support (\$M) |
|---------------------------|-----------------------------|------------------------|------------------|---------------|-------------|----------------|--------------------|----------------------------|------------------|-------------------------------|-----------|--------------------------------|--------------------------|---------------|---|
| Milwaukee ERS | 3.8 | 13.8 | 9.7 | 23.5 | 8 | Y | N | 27 | 2005 | 11.2 | 2.5 | 13.7 | 1.7 | 2 yrs | 14.7 |
| New Mexico PERA | 9.4 | 50.7 | 21.3 | 72.0 | 158 | Y | Y | 64 | 2002 | 12.0 | 1.0 | 13.0 | 0.4 | 5,760 hrs | 13.0 |
| Missouri PSRS / PEERS | 20.3 | 145.0 | 45.0 | 190.0 | 533 | Y | N | 100 | 2006 | 7.6 | 1.7 | 9.3 | 0.5 | 1 yr | 10.6 |
| Vermont OST/RD | 2.6 | 31.9 | 9.3 | 41.2 | 800 | Y | N | 12 | 2006 | 8.1 | 0.4 | 8.5 | N/A | N/A | 8.5 |
| Maine SRS | 8.5 | 55.0 | 39.0 | 94.0 | 654 | Y | N | 137 | 2006 | 6.8 | 0.8 | 7.6 | 0.8 | 5 yrs | 7.6 |
| Idaho PERS | 6.9 | 60.5 | 23.0 | 83.5 | 670 | Y | Y | 56 | 1997 | 6.2 | 0.8 | 7.0 | N/A | - | 7.0 |
| New Hampshire RS | 4.0 | 46.7 | 14.4 | 61.1 | 843 | Y | N | 50 | 2001 | 4.7 | 0.8 | 5.5 | 3.2 | 5 yrs | 5.5 |
| Kansas PERS | 10.3 | 148.1 | 59.1 | 207.2 | 1,454 | Y | N | 86 | 2004 | 4.8 | 0.1 | 4.9 | N/A | N/A | 4.9 |
| San Bernardino County ERA | 3.3 | 15.9 | 5.5 | 21.4 | 18 | Y | N | 24 | 2001 | 3.6 | 0.6 | 4.2 | N/A | - | 4.2 |
| Colorado FPPA | 2.7 | 14.8 | 6.6 | 21.4 | 521 | Y | N | 32 | 2006 | 4.0 | 0.2 | 4.2 | - | N/A | 4.2 |
| Contra Costa County ERA | 3.5 | 9.5 | 6.0 | 15.5 | 18 | Y | N | 37 | 2005 | 2.3 | 0.3 | 2.6 | N/A | - | 2.6 |
| North Dakota RIO | 1.5 | 10.5 | 5.5 | 16.0 | 260 | N | N | 18 | 2004 | 1.8 | 0.0 | 1.8 | 0.1 | - | 1.9 |



Risk Management

- ◆ Large technology projects can fail
- ◆ It is critical to understand and mitigate risks
- ◆ NDPERS must
 - Require experienced vendor staff
 - Require a single systems integrator
 - Invest key staff while minimizing disruption to operations
 - Balance “out-of-the-box” functionality with NDPERS-specific processes
 - Carefully define our needs and manage scope creep
 - Manage change
 - Minimize and manage unforeseen priorities
 - Maintain current legacy systems
 - Support our staff
 - Prepare our infrastructure to support new technology

◆ It will be hard work, but the opportunity is significant



Risk Management (cont.)

◆ Risk mitigation strategies

- Well defined RFP and good selection process
- Good proposals
- Firm contract
- Apply needed staff
- Executive commitment
- Good project management
- Create a win-win situation (with PERS in control)
 - » Pay only for useful deliverables
 - » Holdbacks
 - » 'Referenceability'
- Assign PERS staff and backfill
- Manage expectations



Benefits Summary

◆ Benefits

- Provide integrated business functionality to administer NDPERS numerous benefit plans
- Enable NDPERS to address the expected increasing workload from the aging and retiring North Dakota workforce (and their replacement staff)
- Meet its customers' ever-expanding expectations for improved services in terms of accuracy, efficiency and convenience



Recommendation

- ◆ Elect the “buy” approach to obtain a integrated, proven state of the industry system – with industry best practices included
- ◆ Fund and initiate the RFP development effort
- ◆ Proceed with a system replacement using a comprehensive, all-inclusive benefit administration system from a software vendor with an established record of successful implementations



Recommendation (cont.)

- ◆ Establish a Project Management Office with responsibility for the new benefits solution project and supporting projects
- ◆ Seek assistance from experienced professionals to aid with Oversight Project Management, Independent Validation and Verification and Quality Assurance (OPM, IV&V, QA)



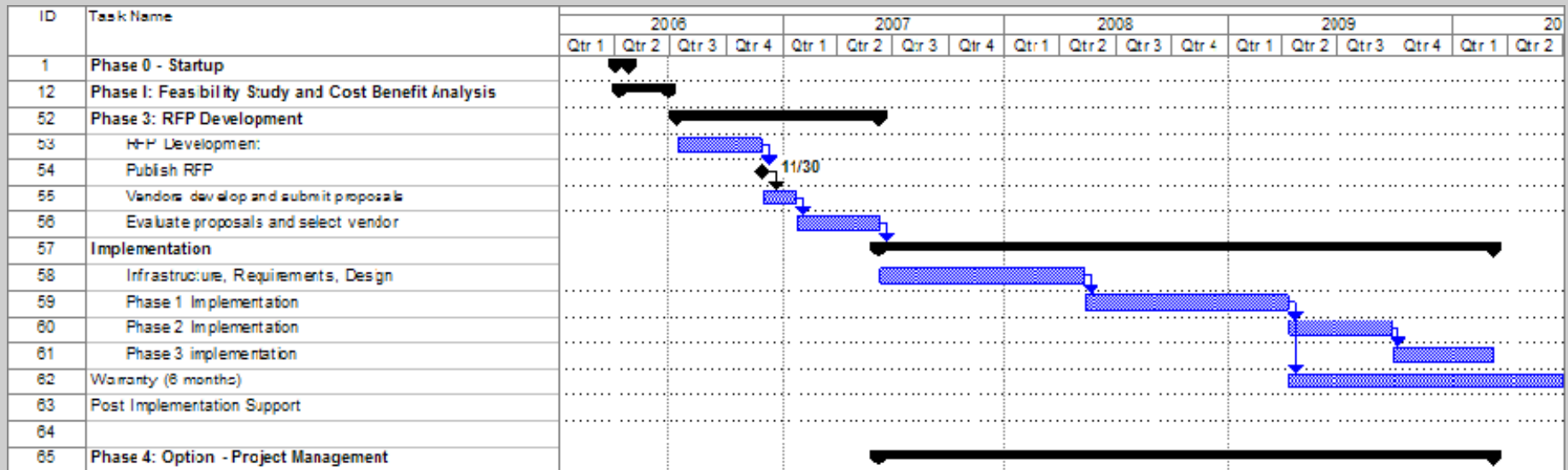
Recommendation

◆ Anticipated project duration

- Assuming a July 2006 start date, RFP and procurement effort will take 11-12 months, finishing May to June 2007
- Assuming a July 2007 start date, implementation will last 30-36 months, ending December 2009 to June 2010



Anticipated Timeline



Questions and Answers

